

1. A system for testing the ready status of an emergency exit sign including a lamp, a lamp driver powered connected to a power source for providing power the lamp, an emergency driver powered by the power source for charging a battery to supply power to the illuminator when normal power is interrupted, wherein the system for testing the ready status of the emergency exit sign is remotely activated by a signal wherein the improvement comprises:

- a) a remote transmitter for sending a pulse-time coded infrared signal for initiating a test routine;
- b) an infrared detector mounted adjacent the emergency exit sign for receiving said pulse-time coded infrared signal; and
- c) a remotely controlled test circuit including a microcontroller connected to said infrared detector and to the emergency driver for the lamp, said microcontroller being programmed to initiate said test routine upon recognition of the pulse-time coded infrared signal by providing an output to the emergency driver simulating a failure of normal power;

whereby upon actuation of the remote transmitter, the remotely controlled test circuit causes the emergency driver for the illuminator to operate the illuminator according to the test routine.

2. The system for testing according to claim 1 wherein said remote transmitter is programmed to transmit and said microcontroller is programmed to provide an output responsive only to a repeated selected pulse-time coded infrared signal.

3. The system for testing according to claim 1 wherein said microcontroller is programmed to provide an output responsive to a selected pulse time coded signal having a carrier frequency which exhibits a wavelength of about 770 nanometers to about 100,000 nanometers.

4. The system for testing according to claim 3 wherein the carrier frequency is modulated by a sub-carrier frequency of digital pulses in the range of about 30 KHz to about 60 KHz.

5. The system for testing according to claim 1 wherein the lamp is disposed in an exit sign fixture, said infrared detector is mounted in a shielded housing disposed in the lighting fixture and the

shielding of said housing is electrically connected to said microcontroller means.

6. The system for testing according to claim 1 wherein said infrared detector is electrically connected to said microcontroller means by a shielded cable, and said cable shielding is electrically connected to said microcontroller means.

7. The system for testing according to claim 6 wherein said shielding of said shielded cable is electrically connected to said shielding of said shielded housing for said infrared detector.

8. The system for testing according to claim 7 wherein said infrared detector is adapted with a conductive case and said case is electrically connected to said shielding of said housing and said cable shielding.

9. The system for testing according to claim 1 wherein said illuminator is a fluorescent lamp, the power source is normal AC power, the lamp drive is a fluorescent ballast and the emergency drive is an emergency ballast.

10. The system for testing according to claim 1 wherein said illuminator is an incandescent lamp.

11. The system for testing according to claim 1 wherein said illuminator is a light emitting diode.

12. The system for testing according to claim 1 wherein said illuminator is a cold cathode tube.

13. A system for controlling the off-on state of a lamp, the lamp powered from a source of electrical power for providing energy to illuminate the lamp, a switch disposed intermediate the source of power and the lamp, said switch operably controlled by a switch control remotely activated by a signal wherein the improvement comprises:

a) a remote transmitter for sending a pulse-time coded infrared signal for initiating a signal to the switch control;

b) an infrared detector mounted adjacent the lamp for receiving said pulse-time coded infrared signal; and

c) the switch control circuit includes a microcontroller connected to said infrared detector and to the switch, said microcontroller being programmed to initiate a change in the state of the switch upon recognition of the pulse-time coded infrared signal by providing an output to the switch to make or break the supply of power to the lamp;

whereby upon actuation of the remote transmitter, the remotely controlled switch control causes the lamp to receive power if the switch was previously off and causes the lamp to be denied power if the switch was previously on.

14. The system for controlling the off-on state of a lamp according to claim 13 wherein said remote transmitter is programmed to transmit and said microcontroller is programmed to provide an output responsive only to a repeated selected pulse-time coded infrared signal.

15. The system for controlling the off-on state of a lamp according to claim 13 wherein said microcontroller is programmed to provide an output responsive to a selected pulse time coded signal having a carrier frequency which exhibits a wavelength of about 770 nanometers to about 100,000 nanometers.

16. The system for controlling the off-on state of a lamp according to claim 15 wherein the carrier frequency is modulated by a sub-carrier frequency of digital pulses in the range of about 30 KHz to about 60 KHz.

17. The system for controlling the off-on state of a lamp according to claim 13 wherein the lamp is disposed in a lighting fixture, said infrared detector is mounted in a shielded housing disposed in the lighting fixture and the shielding of said housing is electrically connected to said microcontroller means.

18. The system for controlling the off-on state of a lighting fixture according to claim 17 wherein

said infrared detector is electrically connected to said microcontroller means by a shielded cable, and said cable shielding is electrically connected to said microcontroller means.

19. The system for controlling the off-on state of a lighting fixture according to claim 18 wherein said shielding of said shielded cable is electrically connected to said shielding of said shielded housing for said infrared detector.

20. The system for controlling the off-on state of a lighting fixture according to claim 19 wherein said infrared detector is adapted with a conductive case and said case is electrically connected to said shielding of said housing and said cable shielding.

21. The system for controlling the off-on state of a lighting fixture according to claim 13 wherein said lamp is an incandescent lamp.

22. The system for controlling the off-on state of a lighting fixture according to claim 13 wherein said lamp is a fluorescent lamp.

23. A system for controlling the level of illumination of a lamp connected to a source of electrical power for illuminating the lamp, a variable electrical control disposed intermediate the power source and the lamp, wherein the variable electrical control is remotely activated by a signal wherein the improvement comprises:

- a) a remote transmitter for sending a pulse-time coded infrared signal to the variable electrical control;
- b) an infrared detector mounted adjacent the lamp for receiving said pulse-time coded infrared signal; and
- c) the remotely controlled variable electrical control includes a microcontroller connected to said infrared detector, said microcontroller being programmed to initiate the variable electrical control upon recognition of the pulse-time coded infrared signal by providing an output to variable electrical control;

whereby upon actuation of the remote transmitter, the remotely controlled variable electrical control circuit varies the amount of power supplied to the lamp thereby changing its level of illumination.

24. The system for controlling the level of illumination according to claim 23 wherein said remote transmitter is programmed to transmit and said microcontroller is programmed to provide an output responsive only to a repeated selected pulse-time coded infrared signal.

25. The system for controlling the level of illumination according to claim 23 wherein said microcontroller is programmed to provide an output responsive to a selected pulse time coded signal having a carrier frequency which exhibits a wavelength of about 770 nanometers to about 100,000 nanometers.

26. The system for controlling the level of illumination according to claim 25 wherein the carrier frequency is modulated by a sub-carrier frequency of digital pulses in the range of about 30 KHz to about 60 KHz.

27. The system for controlling the level of illumination according to claim 23 wherein the lamp is disposed in a lighting fixture, said infrared detector is mounted in a shielded housing disposed in a lighting fixture including the lamp and the shielding of said housing is electrically connected to said microcontroller means.

28. The system for controlling the level of illumination according to claim 23 wherein said infrared detector is electrically connected to said microcontroller means by a shielded cable, and said cable shielding is electrically connected to said microcontroller means.

29. The system for controlling the level of illumination according to claim 28 wherein said shielding of said shielded cable is electrically connected to said shielding of said shielded housing for said infrared detector.

30. The system for controlling the level of illumination according to claim 29 wherein said infrared detector is adapted with a conductive case and said case is electrically connected to said shielding of said housing and said cable shielding.

31. The system for controlling the level of illumination according to claim 23 wherein said lamp is a fluorescent lamp and said lamp receives power from a variable electronic ballast and said variable electrical control is connected to the variable electronic ballast for varying the power to the lamp.

32. The system for controlling the level of illumination according to claim 23 wherein said lamp is an incandescent lamp and said variable electrical control includes a potentiometer for varying the power to the lamp.